

Increase in Automobiles With Seat Belts During a Year of Program Efforts

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IN VIEW of the evidence for the potential of automobile seat belts in preventing injuries, the Public Health Service, the American Medical Association, and the National Safety Council undertook, in 1958, a national program to encourage the use of seat belts. A community demonstration project was one of their first efforts. Its purpose was to gain experience with, and to evaluate the effectiveness of, a community seat belt promotion program. The place chosen as a community laboratory was Allen County, Ind., whose chief city is Fort Wayne.

Allen County was selected as the site on the basis of several considerations. The community chosen had to be small enough so that, with available resources, the program would have a sufficient impact to produce measurable changes. It had to be of a size which could economically be surveyed to evaluate program efforts. A strong local safety council and a cooperative health department and medical society were considered necessary. The community had to be self-sufficient, not a suburb of a metropolis, so that program efforts could be localized. Finally, it had to be reasonably accessible to the sponsoring national organizations.

The program was planned and organized during 1959. The Narrow Fabrics Institute, the

trade association of seat belt webbing manufacturers, made a grant of \$12,000 to the National Safety Council, which provided salaries for a full-time project director and secretary. The Accident Prevention Division of the Public Health Service was responsible for the evaluation surveys and related analyses. This included a survey of a control community where no major seat belt promotion program had been undertaken. The control community chosen was Vanderburgh County, Ind., whose chief city is Evansville. Office space for the Allen County program was provided by the Veterans Administration Hospital in Fort Wayne.

A saturation program was planned to reach every citizen in Allen County repeatedly, not only through the mass media but also through his business or labor group, his church, his service and civic clubs, his children's school—through every possible channel. The program began in February 1960.

The Program

The Fort Wayne-Allen County seat belt program was launched at a kickoff luncheon with representatives of the press, radio, and television on hand. Throughout the campaign the newspapers kept news of the seat belt program before their readers. The radio stations scheduled spot announcements concerning seat belts. The television stations filmed every important seat belt event and produced a 30-minute show dealing with the use of seat belts. In addition, a State police officer who conducted a daily television program on road conditions made frequent references to seat belts.

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The cooperation of other community groups was also obtained. One community service club offered to market seat belts within the club membership. A meeting with local law enforcement agencies of the Fort Wayne-Allen County area resulted in an agreement to supplement motor vehicle accident reports with judgments as to whether seat belts did or could have prevented deaths or injuries. Officers with stories on seat belt experience were among the speakers supplied by a specially formed speakers bureau.

An important contact was the city school system. Assemblies featuring well-known traffic officers were organized for the city's junior and senior high schools. A professional race car driver devoted part of his presentation at several assemblies to seat belts. A public speaking, poster, and essay contest held in the schools was also used to create interest in the campaign. Seat belts were installed in all driver-trainer cars, and the use of seat belts was discussed with the driving instructors.

The cooperation of industrial and commercial groups was obtained. A meeting with the gasoline retailers association resulted in key service stations installing seat belts bought elsewhere in the city, thus allowing the sale of seat belts to be carried on in such outlets as grocery stores and department stores. All casualty insurance groups were given an outline of the campaign and were offered information on seat belts for their organizational meetings. The companies reacted to these approaches by donating a sufficient number of seat belts to equip local police cars and official vehicles. Letters were sent to the seat belt manufacturers inviting their cooperation, and several sent representatives to aid the program staff. One company supplied a demonstration bus equipped with seat belts and display material. Parked at a busy control intersection, the bus aroused the public's attention and was publicized by the press, radio, and television. For 1 week the bus was used as a central headquarters for the distribution of seat belt information. In addition, the manufacturers contracted for radio and television spots featuring seat belts. Local advertising agencies assisted in developing radio spot announcements and video spot tapes.

Displays and demonstrations were also employed. A board mounted with photographs

of automobile wrecks was standard display. At a Scout-O-Rama, a car seat, one side equipped with a belt, the other without, was mounted on rollers. With two Boy Scouts in place (one belted in, the other not) the device was released down an incline. When it jerked to a stop at the bottom, the belted boy remained sitting in his seat while the other occupant tumbled forward onto a straw mat.

Packets containing brochures, fact sheets, and posters were distributed to numerous individuals and service, educational, and religious organizations. For groups desiring more information, the speakers bureau provided qualified speakers and leaders for discussions.

Program Evaluation Surveys

Three sample surveys were conducted to evaluate the Fort Wayne-Allen County seat belt program. The first survey was conducted in Allen County (including Fort Wayne) shortly after the seat belt program was launched. It was designed to estimate the percentage of passenger vehicles with seat belts as of the beginning of the program, in mid-February 1960. The second survey was conducted in Allen County shortly after a year of program efforts and was designed to provide a comparable estimate for mid-February 1961. In addition to these before and after surveys in Allen County, a third survey was conducted in Vanderburgh County, Ind. (including Evansville), in order to estimate the percentage of passenger vehicles with seat belts as of mid-February 1961 in a comparable county but without a year of intensive local seat belt program efforts. In each of the surveys the owners of a 10 percent sample of the registered passenger vehicles were queried by mail as to (a) whether seat belts were installed in their cars, (b) the seat positions in which the belts were installed, and (c) when the belts had been installed.

Persons who failed to respond received a followup mailing about 2 weeks after the first mailing. Those not responding to the second mailing were contacted by phone or in person about 2 weeks after this second mailing. A reply as to whether seat belts were installed was received from about 90 percent of those included in the samples. In deriving estimates it was assumed

that vehicles for which the required information was not obtained were distributed in the same proportion as similar vehicles for which information was obtained.

Since the estimates presented in this paper are based on sample surveys, they are subject to sampling errors. The chances are about 95 out of 100 that a complete enumeration would have yielded a percentage well less than one unit higher or lower than the estimated percentage of vehicles with one or more seat belts. For a specific category which includes relatively few

vehicles, such as all 1960 model vehicles, chances are 95 out of 100 that a complete enumeration would have yielded a percentage less than about 3 units higher or lower than the estimated percentage.

Increase in Vehicles With Seat Belts

As of February 1960, an estimated 4.0 percent of the 76,000 passenger vehicles in Allen County were equipped with one or more seat belts. By February 1961, after a year of pro-

Figure 1. Percentage of passenger vehicles equipped with seat belts, by model year of vehicle

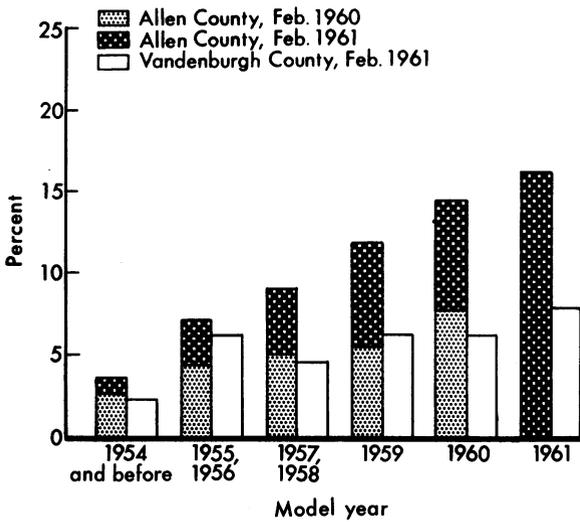


Figure 2. Percentage of 1958 or earlier model passenger vehicles equipped with seat belts, by make of vehicle

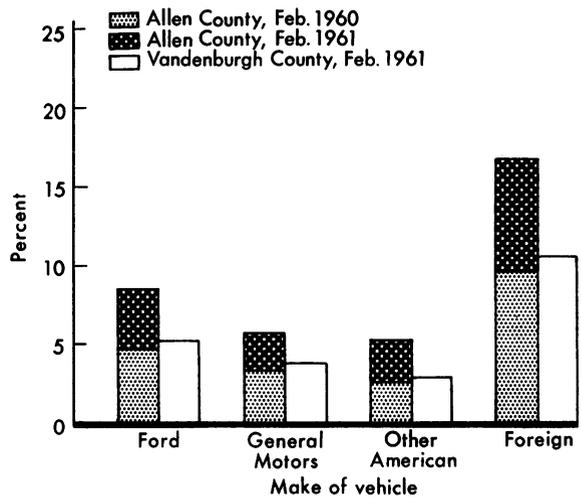


Figure 3. Percentage of 1959 model and 1960 model passenger vehicles equipped with seat belts, by make of vehicle

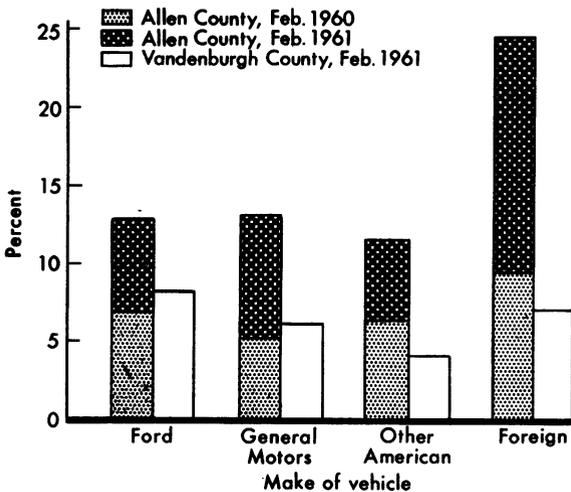


Figure 4. Percentage of 1961 model passenger vehicles equipped with seat belts, by make of vehicle

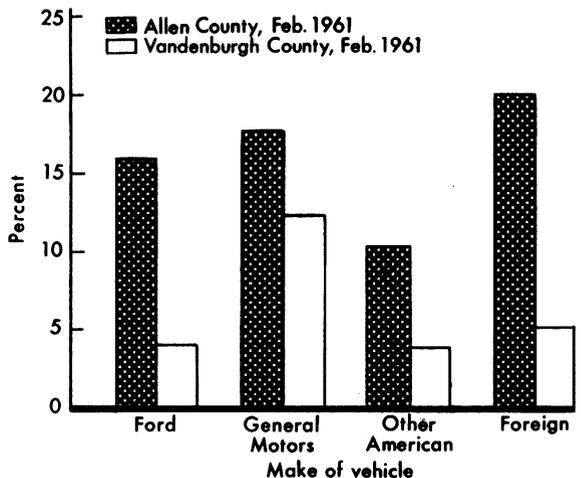
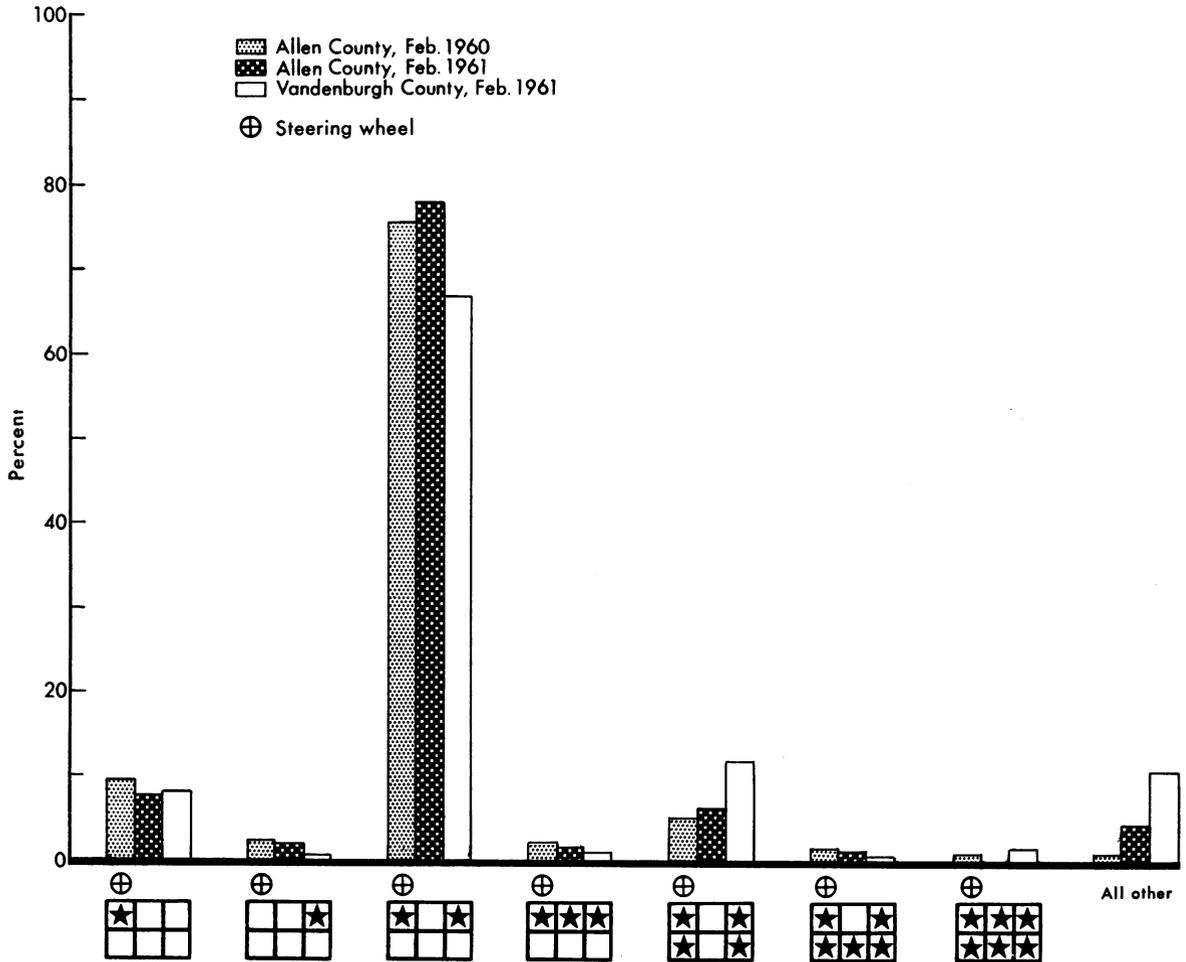


Figure 5. Location of seat belts in vehicles with seat belts



gram efforts, this percentage had risen to 8.3, whereas only 4.5 percent of the 53,000 passenger vehicles in Vanderburgh County had one or more seat belts as of that time. Most of the difference between the two communities is undoubtedly due to the effects of the Fort Wayne-Allen County safety seat belt program. It must be noted, however, that there was apparently a somewhat lower percentage of vehicles with seat belts in Vanderburgh County at the beginning of the period in question. A necessarily rough estimate, based on replies to the question as to when seat belts were installed, indicates that the percentage of vehicles with seat belts in Vanderburgh County as of February 1960 was closer to 3 percent than to the 4 percent estimate for Allen County.

It is estimated that the rate at which current model cars in Allen County were being pur-

chased with seat belts or equipped with seat belts shortly after purchase increased from 7.9 to 16.2 percent (fig. 1).

Among vehicles of various makes and model years, the higher the percentage with seat belts at the beginning of the program, the greater tended to be the increase in the percentage with seat belts during the program year. This is illustrated in figures 1, 2, 3, and 4, which show both higher initial percentages and greater increases for late model and foreign cars. Apparently social, economic, and automotive factors associated with the installation of seat belts in the absence of an active local seat belt program are also associated with the increase in seat belts once an active program is initiated. This appears to be true at least while the percentage of vehicles with seat belts is low.

Program efforts caused little change in the

distribution of vehicles with seat belts by the number and position of the installed seat belts. This is illustrated in figure 5, which shows that both before and after the year of program efforts, about three-fourths of all vehicles with seat belts had two belts, both for the front seat. About one-tenth had a belt for only the driver.

Summary

An automobile seat belt promotion program was undertaken in Allen County, Ind. The program was designed to reach Fort Wayne and county residents repeatedly, not only through the mass media but also through their work and community institutions.

During the year of program efforts the percentage of vehicles with one or more seat belts in Allen County rose from an estimated 4.0 percent to 8.3 percent. The increase in Vander-

burgh County, which had no major seat belt program, was only from somewhat over 3 percent to 4.5 percent. The rate at which current model cars in Allen County were being purchased with seat belts or equipped with seat belts shortly after purchase increased from an estimated 1.9 to 16.2 percent.

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No systematic assessment of the effectiveness of individual program ingredients was undertaken. Such an assessment would, ideally, require programs of different content in each of several comparable communities.

Increased Expenses of American Hospitals

Cost of operating American hospitals increased nearly \$1 billion in 1961, according to statistics in the 1962 Guide Issue of *Hospitals*, Journal of the American Hospital Association. The cost was \$9,387,242,000, compared with \$8,420,986,000 in 1960. Hospital admissions rose also in 1961, to 25,474,370, nearly a half million more than in the preceding year.

The average cost per patient-day increased in all categories of hospitals. In non-Federal short-term general hospitals, which admit 91.7 percent of all patients, the average cost climbed \$2.75, from \$32.23 in 1960 to \$34.98 in 1961. This average included voluntary hospitals, \$36.04; proprietary, \$33.29; and State and local governmental, \$32.27. In long-term non-Federal hospitals, the average cost in psychiatric institutions was \$5.53; in tuberculosis hospitals, \$14.72; and in general long-term hospitals, \$14.49. Federal hospital average was \$23.34.

Payroll, \$6.2 billion in 1961 and \$5.6 billion in 1960, accounted for nearly two-thirds of the costs. The increase reflects additional hospital employees, 1.6 million in 1960 compared with 1.7 million in 1961, as well as higher salaries for the more highly skilled personnel needed to give today's specialized care. Expanding research, continued education of health personnel, higher prices for equipment, and the continually growing number of outpatients (whose visits are not counted in admissions) also boosted hospital expenses.